

DEVICE AND METHOD FOR PERFORMING END-TO-SIDE ANASTOMOSIS

ABSTRACT OF THE DISCLOSURE

Devices, methods, and kits are provided for suturing an end of a first body
5 duct to a hole in the side of a second body duct. The present devices and methods are used to
simplify the suturing procedure and thus reduce operating time. In one embodiment, the
present device includes a structure for holding the end of the first body duct and positioning
the end adjacent to the hole in the side of the second body duct. The structure of the device is
typically a shaft having a surface adapted to receive the first body duct. A plurality of
10 needles are arranged on the structure to be advanced along a plurality of paths. Each needle
path first passes radially into and forwardly out of the end of the first body duct and into the
hole of the second body duct. The path then everts so that the needles and associated sutures
will pass outwardly through tissue peripheral to the hole when the end of the first body duct
is on the structure adjacent to the hole in the second body duct. The needles preferably
15 travel along such paths when they are advanced forward. In one embodiment, the device uses
a J-shaped tube for guiding one of the needles along the desired path. In another
embodiment, shape-memory needles having an arcuate profile are used to create the desired
path.